Biology - FSC Part 1 Biology English Medium Chapter 2 Preparation

Q1. Define heat capacity and gives its advantage,

Ans 1: The specific heat capacity of water is the number of calories required to raise the temperature of 1 gm of water from 15-16 Degree and it is 1 Degree.This is because much of the heat energy is used to break hydrogen bonds.Water work as temperature stabilizer for organisms in the environment and hence protects living materials against sudden thermal changes.

Q2. Define monosaccharides with examples.

Ans 1: Monosaccharides are simplest,more sweet sugars,which can not be hydrolyzed into simpler sugars.example are Ribose,Glucose.

Q3. How fibrous proteins differs from globular proteins?

Ans 1: Fibrous Proteins:They consist of molecule having one or more polypeptide chains in the form of fibrill
They are insoluble in aqueous media.

Ans 2: Globular proteins:These are spherical or ellipsoidal die to multiple folding polypeptide chain.
Tertiary structure is most important in them,.

Q4. How a peptide bond is formed.

Ans 1: The linkage between hydrooxyl group of carboxylic group of one amino acid and the hydrogen of amino group of another amino acid release water and C-N link to form peptide bond.

Q5. Define Protective role of water.

Ans 1: Water is effective lubricant that provide a protection against damages resulting from fiction,For Example tears protect the surface of eye from rubbing of eyelids. Water also forms a fluid cushion around organs that helps to protect them from trauma.

Q6. How many chains of amino acids are present in hemoglobin,also mention number of amino acids in hemoglobin.

Ans 1: There are four chains in hemoglobin two alpha and two beta chains,amino acids are 574.

Q7. What is heat capacity of water?

Ans 1: Water has great ability of absorbing heat with minimum change in its own temperature. The specific heat capacity of water - The number of calories required to raise the temperature of 1 g of water from 15 to 16 Degree is 1.0.

Q8. Define Heat of vaporization,what is heat of vaporization of water?

Ans 1: Water absorb much as of heat as changes from liquid to gas.Heat of vaporization is expressed as calories absorbed per gram of vaporized water.
The specific heart of vaporization of water 574 k cal/kg.

Q9. Differentiate between anabolism and catabolism.

Ans 1: Anabolism: The reaction in which simpler substance are combined to from complex substance are called anabolism or anabolism reaction Anabolic reaction need energy.

Ans 2: Catabolsim:The reaction in which complex molecule are broken down into simpler once,are called catabolism or catabolic reactions.Energy is released in these reaction.

Q10. What are purines and pyrimidines?

Ans 1: Purines are nitrogen bases which have double ring structure in their molecular formula like adenine and guanine.

Ans 2: Pyrimdines are nitrogen bases which have single ring structure in their molecular formula like cytosine and thymine.